PR-R7-03-10050
Amendment 1
April 22, 2003

Attachment K

Question Set 1

Solicitation Number PR-R7-03-10050 **April 22, 2003**
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Question 1: What is the basis for requiring that the recirculation wells be run in reverse flow mode?
Response: The basis of EPA's selection of groundwater circulation wells being operated in the reverse flow configuration is the site-specific conditions at the Northwest Pipe & Casing Site. These circumstances are presented and discussed in the *Groundwater Circulation Well Pilot Test Technical Memorandum, January 2003*specifically Section 2.3.This document is available for review and download on EPA's web site for the solicitation: http://www.epa.gov/oamreg02/region10/index.htm

Question 2: Is this an EPA requirement or a preference of the design engineer?
Response: This is an EPA requirement.

Question 3: Is the EPA aware of the significant potential for O&M complications associated with in-situ air stripping devices? In-well stripping has proven to be more practical and cost effective.
Response: In-well stripping via airlift is not compatible with operating recirculation wells in the reverse-flow mode. Operation and maintenance considerations have been taken into account in the design of the circulation well systems.

Question 4: Has URS projected the cost difference between an in-well stripping approach and the proposed in-situ stripping system?
Response: No. We did not direct EPA's design engineer, URS, to conduct a detailed cost comparison of standard flow vs. reverse flow configurations of the circulation wells.

Question 5: Is there any real advantage in placing an air stripper in a vault below ground surface?
Response: Yes. An advantage of placing the stripping unit below grade along with the circulation wells is the minimization of above-ground structures and above-ground conveyance of contaminated groundwater.

Question 6: Why not use an above ground low-profile stripper if you are not going to allow in-well stripping?
Response: Based on the information we have at his time, we are confident that an in-well stripping system would meet EPA's needs at this site. These considerations are very important for this site because EPA and Oregon DEQ plan to sell the site for redevelopment and desire to minimize physical obstacles to such redevelopment.

Question 7: If we bid an air lift GCW system, would the approach be acceptable?
Response: EPA requires a REVERSE mode GCW at subject site. By virtue of this functional requirement, an air lift GCW system would not be acceptable.